

CLAIMS

1. A method of producing an electrode alloy powder, comprising:

a first step of immersing a starting powder comprising a hydrogen storage alloy containing 20 to 70 wt% of Ni in an aqueous solution containing 30 to 80 wt% of sodium hydroxide at a temperature of 90°C or higher and;

a second step of washing with water said powder which has been subjected to said first step.

2. The method of producing an electrode alloy powder in accordance with claim 1, further comprising a third step of mixing said powder with an oxidizing agent in water after said second step.

3. The method of producing an electrode alloy powder in accordance with claim 1, wherein said starting powder has a  $\text{CaCu}_5$  type crystal structure and comprises an alloy containing a mixture of rare earth element, Ni, Co, Mn and Al.

4. The method of producing an electrode alloy powder in accordance with claim 3, wherein a Co content in said starting powder is 6 wt% or less.

5. The method of producing an electrode alloy powder in accordance with claim 1, wherein a mean particle size of said starting powder is 5 to 30  $\mu\text{m}$ .

6. The method of producing an electrode alloy powder in accordance with claim 1, wherein an oxygen

content in said starting powder is 1 wt% or less.

7. The method of producing an electrode alloy powder in accordance with claim 1, further comprising an additional step of mixing said starting powder with water prior to said first step, and conducting said first step by using said starting powder in a moistened state.

8. The method of producing an electrode alloy powder in accordance with claim 7, wherein said additional step is a step of pulverizing coarse particles of a hydrogen storage alloy containing 20 to 70 wt% of Ni under a condition having water to have a mean particle size of 5 to 30  $\mu\text{m}$ .

9. The method of producing an electrode alloy powder in accordance with claim 1, wherein said first step is a step of immersing said starting powder in said aqueous solution containing 30 to 80 wt% of sodium hydroxide for 0.2 to 3 hours.

10. The method of producing an electrode alloy powder in accordance with claim 1, wherein said second step is a step of washing with water said powder which has been subjected to said first step, until a pH of used water becomes 9 or less.

11. The method of producing an electrode alloy powder in accordance with claim 2, wherein said third step is a step of adding an oxidizing agent in a water having a pH of 7 or more in which said powder is dispersed.

12. The method of producing an electrode alloy powder in accordance with claim 2, wherein said third step is a step of adding, while stirring, a hydrogen peroxide solution in a water having a pH of 7 or more in which said powder is dispersed.

13. The method of producing an electrode alloy powder in accordance with claim 12, wherein an amount of hydrogen peroxide to be added is 0.5 to 15 parts by weight per 100 parts by weight of said powder.

14. An electrode alloy powder produced by the method in accordance with claim 1, said powder containing 3 to 9 wt% of a magnetic substance comprising metallic nickel.

15. A battery including said electrode alloy powder in accordance with claim 14.